

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-000514**Date Inspected:** 07-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 0**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 12**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island, Shanghai

<b>Quality Control Contact:</b>	ABF Paint Supervisor William (Bill) Oak			<b>Quality Control Present:</b>	Yes	No
<b>Material transfer:</b>	Yes	No	N/A	<b>Sampled Items:</b>	Yes	No N/A
<b>Stock Transfer:</b>	Yes	No	N/A	<b>OK to Cut:</b>	Yes	No N/A
<b>Rebar Test Witness:</b>	Yes	No	N/A	<b>Delayed/Cancelled:</b>	Yes	No N/A

**Other:** Surface Preparation and Coatings Application**Bridge No:** 34-0006**Component:** OBG 4BE, 4BW, Miscellaneous Metal**Bid Item:** 79**Lot No:** B226**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Donald Jordan arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

The following inspection were performed by Caltrans QA Coatings Inspector Jordan, American Bridge/Fluor Enterprises, a JV (ABF) Paint Supervisor William (Bill) Oak, ABF QC Zhou Qun Song (Joe), ABF QC Shi Zhaoyuan (Stone), ABF QC Zhou Wei, International Paint Onsite Technical Services Engineer Peng Zi Li, Zhenhua Port Machinery Company, LTD (ZPMC) Production Manager Bevin Dong, ZPMC QC Manager Xia Yong, ZPMC QC Zhang Diang, ZPMC QC Dong Yao Fei and ZPMC QC Guo Wan Li.

**Miscellaneous Metal**

Caltrans QA Coatings Inspectors received a Notice of Inspection for to attend a joint inspection with ABF and ZPMC QC for 3 OBG counterweight segments, 15 X28C diaphragm, 9 X28A support, 67 X3G quadrate splice, and 27 X3C quadrate splices were abrasive blasted and primed. A few spots of grinding were required to remove arc strikes, sharp edges, dings in the substrate that left sharp edges sticking up, and edge conditioning required by the Project Special Provisions Section 10-1.69. After the grinding was completed the surfaces were re-blasted to meet the SSPC SP10 Contract requirements. Surface profile Testex Tape was used by ZPMC QC personnel to record the blast profile. The Testex tape was measured using a dial micrometer. The readings were within the contract requirements of 40 and 86 microns. Ambient conditions were within Contract required parameters. Interzinc 22 primer was applied within the specified 8 hour window after the start of abrasive blasting. The coating was mixed under the supervision of Caltrans QA Coatings Inspector Jordan, International Paint's Onsite Technical Services Engineer Peng Zi Li and QC personnel representing ABF and ZPMC.

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### OBG 4BE

Caltrans QA Coatings Inspectors received a Notice of Inspection for to attend a joint inspection with ABF and ZPMC QC for external cure test, solvent rub, quarter rub, residual chlorides (soluble salts) tests on OBG 4BE. Cure tests were performed according to the requirements in the Contract Special Provisions, the Approved As Noted Paint Quality Work Plan and the appropriate standards referenced in those documents. The Pencil Hardness test was acceptable. The Quarter Rub test was acceptable. The Solvent Rub (MEK Rub) test passed.

Adhesion Tests were performed. The dollies were pulled under the supervision of the above listed QA and QC personnel. The pull tests were acceptable. The results exceeded the contract requirement of 4Mpa minimum.

Residual Chlorides (soluble salts) tests were performed on the external surfaces. The test results showed that the surface was acceptable to be coated with Interfine 979 finish coat.

The highest registered reading of salts contamination was 20 microSiemens per square centimeter which is below the contract maximum of 10 micrograms per square centimeter.

Dry Film Thickness readings (DFT's) were taken according to SSPC PA-2. The dft's were recorded by ZPMC QC personnel. Taking of the readings were not witnessed by Caltrans QA Coatings Inspectors and ABF QC personnel. Spot checks will be taken by Caltrans QA Coatings Inspectors at a later time after ABF has given the final approval of the coating application.

### OBG 4 BW

Caltrans QA Coatings Inspectors received a Notice of Inspection for to attend a joint inspection with ABF and ZPMC QC for first abrasive blast inspection on the interior ceiling and diaphragm areas of OBG 4 BW. Areas requiring grinding were identified and marked by QC and QA staff. Caltrans QA Weld Inspector's Rodney Patterson and Eric Prue performed VT inspection to locate and mark any weld repairs required. The weld repair spots were identified by placing tape over the area so it can be located after primer application. After the inspection was complete, grinding was performed. Abrasive blasting of the area was performed again. Another surface preparation inspection will be performed after blasting is complete.



### Summary of Conversations:

There were no relevant conversations on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh (China) +8613472477571, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Jordan,Don	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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